



Solid Waste Committee

***Boxborough Solid Waste Committee
Report to the Board of Selectmen***

March 21, 2005



Executive Summary

Solid Waste Committee

This information in this presentation has been researched and compiled by Boxborough Solid Waste Committee members Kristin Hilberg, Kyle Bowers, Pam Collins, Leah Russell and Margaret Woodruff.

The committee's charter was to assess, research and recommend potential long term changes to our current system of Municipal Solid Waste (MSW) management and disposal. Pending agreement with the committee's recommendation, we propose an intense analysis to further ground financial projections and refine implementation details.

Various research methodologies were used, including survey of neighboring towns, financial assessment of current operations and United States Environmental Protection Agency (EPA) solid waste management guidelines and recommendations.

The committee initially identified and investigated 6 possible options for Boxborough Municipal Solid Waste disposal:

- Annual Sticker Fee + Tax Base (current model)
- Pay-as-you-Throw (PAYT) resident drop-off
- Town-owned curbside pick-up
- Private curbside pick-up (Stow model)
- Town contracted curbside pick-up
 - with PAYT
- Regionalization of services



Annual Sticker Fee + Tax Base (current model)

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- ▶ ***Description:*** Transfer Station activities remain unchanged. Residents purchase an annual sticker (currently \$100) which gives them access to the transfer station two days a week to drop off trash and recyclables

- ▶ ***Pros:***
 - Facility and system currently in place
 - highly efficient
 - Residents familiar with the current system – requires no change
 - Monitoring and management less demanding than other potential options
 - Wide range of materials collected / exchanged
 - Town retains control of solid waste disposal

- ▶ ***Cons:***
 - Town must monitor and manage Transfer Station
 - Sticker revenue does not fully cover operating costs
 - NESWC fund nearly drawn down
 - Sticker “abuse”
 - Not equitable based on usage of Transfer Station or amount of solid waste per household

- ▶ Sticker fees could be increased to cover cost of Transfer Station in order to make the operation self-funding
 - Perceived as cost prohibitive to private hauler customers or condominium owners who wish to recycle or make use of bulk item disposal



Curbside Pick-up Options—Not Recommended

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▶ Curbside Models:

- *Town-owned curbside:* Town purchases trucks and equipment to provide curbside hauling of refuse and recyclables
- *Town-contracted curbside pick-up:* Town contracts with private hauler to provide curbside hauling of refuse and recyclables for all residents. Could be done with, or without, PAYT component
- *Private curbside pick-up:* Town provides no solid waste disposal program. Residents individually contract curbside pick-up
 - Committee supports belief that the Town should provide solid waste disposal service
 - Town loses control of solid waste disposal entirely
 - The cost for each taxpayer to hire a private hauler could be more than double that of the average homeowner's cost of for using the transfer station. See Appendix 3



Curbside Model Pros and Cons

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- ▶ In general, all three curbside models share the same pros and cons

Pros:

- Town does not have to manage Transfer Station
- Town retains some control of solid waste disposal via communication with contractors
- Curbside pick-up preferable for many residents
- Participation rates likely to increase (perhaps to near 100%)
- Funding is highly equitable – even more with PAYT component
- With PAYT component, increased recycling

Cons:

- Many residents have clearly stated “Don’t Close Our Transfer Station!”
- Initial costs of implementation and closing of transfer station
- Continued need for disposal of large objects
- Increased air and noise pollution from the garbage trucks
- Potential for trash to be disposed of illegally, as well as increased roadside trash
- Potential for rodent and other wild animals problems
- PAYT component may initially be seen by residents as unfair cost increase
 - requires education and training
- Need staff capabilities to interact with hauler to manage program



Regionalization—no recommendation

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- ▶ There are many ways the town could approach regionalization:
 - Contract with other towns
 - Enter into Inter-municipal Agreements with other towns
 - Develop a regional management system for a curbside program
 - Construct a regional transfer station
 - Co-mingle collections with other small towns to create economy of scale
 - Regionalize recycling programs to achieve economy of scale
 - Other...

- ▶ The MSWC believes this would require a significant investment of time and energy from town employees and elected officials to investigate and achieve
 - As a result, we have not initiated contact with any other towns to determine interest in, or feasibility of, regionalization

- ▶ If this is an avenue the Selectmen would like to further pursue, we recommend that the appropriate task force be created



PAYT / Transfer Station Drop-off--Recommended

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- ▶ ***Description:*** Similar to current process, except residents would be required to dispose of refuse in approved bags purchased from the town via local retailers. Transfer Station activities remain unchanged.

- ▶ ***Pros:***
 - System projected to be self-funding within 3 to 4 years
 - Tax revenue currently used for Transfer Station freed up for other town uses
 - Easy to monitor at transfer station
 - More equitable allocation of funding – residents pay for what they dispose
 - Town retains control of solid waste disposal
 - Increased recycling (up to 50% or more)
 - More affordable for condo owners and private hauler customers to recycle
 - Tipping fees decrease over time as recycling increases
 - Wide range of materials collected / exchanged

- ▶ ***Cons:***
 - Town must monitor and manage Transfer Station
 - May be perceived by residents as change in current process
 - PAYT may initially be seen as a cost increase by residents
 - requires education and training
 - Added funds needed for education



Conclusion

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- ▶ Although there are a wide variety of options, many are not feasible for Boxborough to implement or fund.
 - The committee identified a Pay-As-You-Throw system as the best option that addresses the many needs of the town in the current environment.

- ▶ Pay-As-You-Throw (PAYT) is a unit-based pricing system whereby residents are charged for MSW services per unit of trash they discard rather than solely through a fixed fee or tax.
 - Under PAYT, residents must purchase special bags (or bag tags or container stickers) in order to dispose of refuse via town MSW services
 - It is equivalent to putting a price tag on each bag taken to the transfer station for disposal
 - When residents pay directly for waste disposal services, they are provided with a financial incentive to reduce waste and increase recycling, composting and reuse
 - Over 4,000 communities in the U.S. have implemented a PAYT system
 - Over 100 towns in Massachusetts use PAYT, including Ayer, Bolton, Concord, Groton, Hudson and Maynard
 - We interviewed 11 area towns, all of whom felt PAYT was an appropriate and well-accepted system for their residents

- ▶ The EPA and DEP believe that adopting unit-based pricing is not a matter of “if”, but one of “when”. This is their recommended model for MSW management

- ▶ The committee recommends PAYT option based on the following:
 - Environmental impact, and
 - Equitable funding for all residents, and
 - Most importantly, it helps to address the town’s current financial crisis



Financial Assessment

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- ▶ This recommendation includes a financial model for PAYT for the Town of Boxborough. This model is supported by data from the Town Administrator, Town Accountant and Boxborough DPW. ***However, at this stage it is meant solely for illustrative purposes***
- ▶ The financial model included herein is a reliable assessment for directional indication of our ability to fund PAYT and was used by the MSW Committee to determine feasibility of the option
- ▶ The MSW Committee determined that additional work to create a more definitive model should not be undertaken until the BoS has agreed with the direction of our recommendation



Environmental Benefits of PAYT

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- ▶ Decrease in waste
 - Results in less pollution from incinerators and landfills
 - Refuse generation declines by 14 – 27%*

- ▶ Increase in recycling
 - Across the country, communities that have adopted PAYT report increases in amount of materials recycled from 32 – 59%*, **with no change in the recycling program**

- ▶ Bulk items, special collections including household hazardous waste and a wide range of material would still be collected at the Transfer Station.

*EPA – PAYT information



Equitable Funding

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- ▶ The same economic model that encourages reduction in refuse also results in a more equitable apportionment of costs to cover disposal of MSW
 - Most of the resident’s cost lies in buying bags. Those that use fewer bags will have lower costs.
 - Seniors and two-person households are not supplementing for large families

- ▶ Additionally, under the current model, every taxpayer is covering part of the cost of the Transfer Station, regardless of whether they use it or not.
 - Condominium owners and other residents who use private haulers are “paying twice”
 - Our illustrative financial model proposes a lower sticker price for condominium owners making it more feasible for those who want access to the Transfer Station for recycling
 - The current Boxborough housing stock is 40% condominium

- ▶ Residents who currently use the Transfer Station will be able to retain this service and pay equitably for the amount of refuse they generate

Hypothetical cost comparison:

	<u>Current Scenario</u>	<u>PAYT</u>	<u>Increased Sticker Fee</u>	<u>Private Hauler</u>
Participant	\$100 sticker + tax levy	\$197 average (sticker + bags)	Estimated \$250 upwards	\$400 or more plus bulk
Non-participant	Tax levy	\$0	\$0	\$400 or more plus bulk



Financial Impact to Town

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- ▶ Based on our illustrative financial model, we believe that PAYT for Boxborough will allow MSW disposal to be nearly self-funding, thus allowing for the tax revenue that currently funds the Transfer Station to be reallocated to other town needs
 - NESWC fund currently subsidizing operations, long term cost to tax base will be significantly higher
 - MSW disposal service remains constant in a cost-effective manner

- ▶ This is the same financial result as if the town were to:
 - Close the Transfer Station
 - Move to privately contracted curbside hauling
 - Increase sticker fees

- ▶ While increasing sticker fees appears to be a simple solution to fund the transfer station, it does not address:
 - Equitable distribution of cost among residents
 - Environmental impact
 - Unintended consequences



PAYT versus Increasing Sticker Fees

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- ▶ While increasing sticker fees appears to be a simple solution to fund the transfer station, it does not address the following:
 - High sticker cost will most likely drive more residents to private haulers, thus reducing sticker revenue
 - Equitable distribution of cost among residents
 - Creates equitability among users and non-users of transfer station
 - Results in unintended consequences
 - Disparity of true cost per participant
 - Seniors and small families subsidize larger households
 - Environmental impact
 - PAYT encourages recycling, increasing sticker fees does not
 - Recycling could decrease as people move to private haulers
 - Increase in truck traffic, trash on the roads, illegal dumping
 - Affordability
 - Big one-time hit – especially for those on fixed and lower incomes
 - PAYT allows residents to budget throughout the year
 - Negative voter perception



A PAYT Model For Boxborough

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- ▶ The following illustrative financial model proposes a “two-tiered” pricing system funded from the continued purchase of vehicle stickers as well as purchase of special bags
 - Suggested sticker price would be reduced to \$75/year
 - Per bag charge would begin at \$2.00 and increase to \$2.50 by 2008
 - The average charge per 35 gallon bag in Massachusetts is approximately \$1.50 (range of \$0.60 to \$4.00)
 - Each 30 Gallon bag holds 36 pounds of refuse*
 - Bags would be available for sale at designated Boxborough retailers
 - Seniors would continue to receive free stickers, but would have to pay for bags
- ▶ We propose implementing PAYT in January 2006 (mid FY2006). We expect the balance between amount of refuse and amount of recycling to level off by 2008
 - 2007: Refuse = -10%, Recycling = +20% (vs. 2006)*
 - 2008: Refuse = -20%, Recycling = +45% (vs. 2006)*
- ▶ 2005 numbers are calculated based on Tonnage and 2004 actuals, NOT on Town 2005 budget
- ▶ Fixed costs / Salaries increase by 5% each year
 - Transfer station staff represents current staffing model only
- ▶ Trucking (hauling) costs remain FLAT
- ▶ Participating HH based on FY 2003, the last full fiscal year with reliable data for sticker sales, and remains flat
- ▶ Assumes only Single Family households as base; does not include apartments or condos

* Based on midrange of EPA estimates



Financial Pro Forma for Boxborough PAYT

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	FY 2004 ACTUALS	FY 2005 ESTIMATE	FY 2006 PAYT begins 1/06	FY 2007 PAYT full year	FY 2008 PAYT level
TOTAL FACILITY	\$4,021	\$4,222	\$4,433	\$4,655	\$4,888
TOTAL TRANSPORTATION	\$28,275	\$29,376	\$29,376	\$27,522	\$25,667
TOTAL TIPPING	\$199,893	\$184,944	\$109,645	\$82,419	\$76,664
TOTAL RECYCLING	\$25,419	\$27,021	\$27,127	\$32,218	\$38,560
TOTAL STAFF	\$28,105	\$29,510	\$30,986	\$32,535	\$34,162
TOTAL EXPENSE	\$285,713	\$275,073	\$201,567	\$179,349	\$179,940

REVENUE					
STICKER SALES	\$68,500	\$85,100	\$63,825	\$63,825	\$63,825
PAYT BAG SALES	\$ -	\$ -	\$56,003	\$100,806	\$113,823
NESWC FUND*	\$45,465	\$ 115,715	TBD	TBD	TBD

TOTAL COST FROM TAX BASE	\$171,748	\$74,258	\$81,739	\$14,719	\$2,293
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*The remainder of the NESWC Stabilization Fund (approx. \$120k) can be used to:

- offset "losses" in first 2 years
- pay for implementation of PAYT
- pay for community education for PAYT
- stabilize funding of PAYT as necessary



Our Neighbors Are Making It Work

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Town	Date Implemented	Outcome
Ayer	2002	Success
Bolton	1999	Success
Concord	1992	Success
Dunstable	1992	Success
Groton	2003	Success
Lexington	N/A	Rescinded due to politics
Maynard	1993	Success
Pepperell	1996	Success
Sudbury	1999	Success



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We believe PAYT is the most environmentally and financially responsible option for our MSW disposal

Under this system, everyone stands to benefit

- ▶ We are not creating something new. PAYT works, and has done so successfully in numerous communities.
- ▶ We are joining a long list of towns who implement PAYT as easily as we run the Transfer Station today.
- ▶ Yet they reap the rewards of . . .

Financial Equitability +

Positive Environmental Impact +

Reallocation of Tax \$\$\$



Next Steps

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- ▶ If the BoS agrees with our recommendation to further pursue PAYT, we propose creating a MSW Task Force to undertake the following next steps:
 - Further analyze financials to determine the best, and most acceptable, funding system
 - Create a plan for implementation
 - Research and propose model for community education
 - » Determine costs
 - » Apply for grants – available from the EPA
 - Research and propose model for on-going program management
 - Investigate potential for further revenue generation
 - Revenue from sale of recycled materials
 - Revenue from fee (or stickers) for disposal of bulk items



Appendix

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1. PAYT financial estimates and workbook
2. Frequently asked questions (FAQs)
3. List and comparison of surrounding towns
4. Cost survey of private haulers
5. Bag sales overview
6. PAYT sample questionnaire for surrounding towns
7. Sample regionalization questionnaire